

AMENDMENTS TO THE CLAIMS

Please amend claims 1, 6 and 8 and cancel claims 9-23 as follows.

Please add new claims 24-36.

1. (Currently Amended) A method of controlling the operation of a vehicle ~~[[with]]~~ including a radio communications circuit coupled to a ~~[[first]]~~ microprocessor-based controller, the circuit being configured to communicate with a vehicle operator's handheld radio frequency transponder, ~~said vehicle further including a second microprocessor-based~~ the controller configured to control at least a plurality of hydraulic actuators, ~~a third microprocessor-based controller configured to control a vehicle engine, and further wherein said first, second and third controllers are coupled together by a serial communications bus,~~ the method comprising the steps of:
- a. providing the vehicle ~~[[having the bi-directional]]~~ including the radio communications circuit, the controller and the plurality of actuators;
  - b. providing the radio transponder to the vehicle operator;
  - c. generating electromagnetic radiation from the radio communications circuit;
  - d. bringing the transponder within the range of the electromagnetic radiation;
  - e. energizing the transponder by the electromagnetic radiation;
  - f. transmitting ~~[[first information]]~~ data from the transponder after the step of energizing the transponder, the data being associated with the operator and indicating limits on use of the vehicle, the limits including a subsystem the operator is permitted to use, the subsystem including the plurality of hydraulic actuators;
  - g. receiving at the ~~[[reader]]~~ radio communications circuit the ~~[[first information]]~~ data transmitted by the transponder; and
  - h. controlling at least one subsystem of the vehicle in response to the ~~[[first information]]~~ data received at the ~~[[transponder]]~~ radio communications circuit including the ~~[[steps]]~~ step of:
    - (1) ~~said first controller signaling said second or third controller over said serial communication bus, and~~

[[ (2) said second]] the controller responsively disabling said hydraulic actuators or said third controller responsively disabling said engine at least one subsystem.

2. (original) The method of Claim 1, wherein the step of providing the radio transponder includes the step of providing the radio transponder with a low-power microcontroller configured to receive its operating power from the electromagnetic radiation.

3. (original) The method of Claim 2, wherein the step of providing the radio transponder includes the step of molding the radio transponder into a vehicle ignition key.

4. (original) The method of Claim 2, wherein the step of providing a radio transponder includes the step of embedding the radio transponder in a hand-held card.

5. (original) The method of Claim 4, wherein the step of providing a radio transponder includes the step of mechanically bonding the radio transponder to a vehicle ignition key.

6. (Currently Amended) The method of Claim 1, wherein the step of transmitting the ~~first information~~ data includes the step of transmitting a digital value that identifies the operator.

7. (original) The method of Claim 6, wherein the step of controlling at least one subsystem includes the step of comparing the digital value that identifies the operator with a value previously stored in the vehicle's controller.

8. (Currently Amended) The method of Claim [[7]] 1, wherein the step of controlling at least one subsystem of the vehicle includes the step of disabling the operation of one or more of the following subsystems:

- a. a fuel pump of the vehicle;
- b. ~~a hydraulic system of the vehicle;~~

- [[c]] b. a starting system of the vehicle;
- [[d]] c. an electrical system of the vehicle;
- [[e]] d. a transmission of the vehicle; and
- [[f]] e. an engine of the vehicle.

9-23. (Canceled).

24. (New) A method for permitting a plurality of users of a work vehicle including a plurality of hydraulic actuators to have different degrees of operating access to the vehicle, each of the users having an operating key for operating the vehicle and a radio transponder coupled to the operating key for storing data indicative of the authorized degree of operating access to the vehicle, the method comprising:

transmitting first data indicative of a first authorized degree of operating access to a vehicle control system on the vehicle from a first transponder coupled to a first operating key for the vehicle;

comparing the first transmitted data with data stored in the vehicle control system to determine the first authorized degree of access and to provide a first user with the first authorized degrees of access;

using the first operating key to operate the vehicle;

transmitting second data indicative of a second authorized degree of operating access to the vehicle control system from a second transponder coupled to a second operating key for the vehicle;

comparing the second transmitted data with data stored in the vehicle control system to determine the second authorized degree of access and to provide a second user with the second authorized degree of access;

using the second operating key to operate the same vehicle at a time different than when the first operating key is being used;

wherein the first authorized degree of access and the second authorized degree of access represent different degrees of control of the plurality of hydraulic actuators.

25. (New) The method of claim 24, wherein the first and second authorized degrees of access are different according to at least one of the following characteristics: total distance of authorized operation, geographical areas of authorized operation, specific hours during a day when the vehicle may be operated, dates or days of the week when the vehicle may be operated, and total time of authorized operation.

26. (New) The method of claim 24, wherein the vehicle includes at least one of an engine-ignition subsystem, an engine-fuel-pump subsystem, and an engine-starting subsystem, and the user is limited to controlling subsystems according to data in the user's transponder.

27. (New) The method of claim 24, wherein data indicative of the first and the second authorized degree of access includes conditional limits that prevent the use of the vehicle if the conditional limits are exceeded.

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28. (New) The method of claim 27, wherein data indicative of the conditional limits are communicated from the transponder and include data indicative of one or more of the following: the total hours of authorized use, the total distance of authorized travel, the maximum speed of authorized operation, the maximum load on the engine and the geographical area in which the vehicle is authorized to operate.

29. (New) A system for permitting different authorized degrees of access for a plurality of users of a vehicle, comprising:

a first radio transponder storing data indicative of a first authorized degree of access to the vehicle;

a second radio transponder storing data indicative of a second authorized degree of access to the vehicle, wherein the first authorized degree of access is different from the second authorized degree of access;

an operating switch and first and second operating keys configured to operate the operating switch, wherein the first and second operating keys are coupled to the first and second transponders; and

an electronic control system mounted on the vehicle and configured to provide different authorized degrees of access to the vehicle to a first user and a second user based on the data indicative of the first and second authorized degree of access stored in the first and second transponders, the electronic control system including a radio transmitter and a reader circuit, the radio transmitter configured to energize the first transponder when the first operating key is located proximate to the operating switch and the second transponder when the second operating key is located proximate to the operating switch, the reader circuit configured to read the data from the first and second radio transponders when a respective one of the first and second transponders is energized, and the data received from the first transponder and the data received from the second transponder each includes data indicative of the level of control of a hydraulic subsystem given to the first and second user, respectively.

30. (New) The system of claim 29, further comprising a display adapted to display a message indicating data stored in the transponder.

31. (New) The system of claim 29, wherein the first and second authorized degrees of access differ by at least one characteristic selected from the group of characteristics including: allowed times and dates of operation, hours during the day when the vehicle may be operated, total time of authorized operation, and a subsystem that the operator is authorized to operate.

32. (New) The system of claim 31, wherein the subsystem includes at least one of an engine-ignition subsystem, an engine-fuel-supply subsystem, and an engine-starting subsystem.

33. (New) The system of claim 29, wherein the hydraulic subsystem includes an auxiliary hydraulic controller that controls the flow of hydraulic fluid to at least a lift cylinder and a bucket cylinder, and further wherein the control system permits the first user and the second user to differently operate the cylinders based upon data in at least one of the first and second transponders that is transmitted to the control system.

34. (New) The system of claim 29, wherein the first and the second authorized degrees of access include conditional limitations that limit the use of a portion of the vehicle if the conditional limitations are exceeded.

35. (New) The system of claim 34, wherein data indicative of the conditional limitations are downloaded from at least one of the first and second transponders to the vehicle control system and are indicative of one or more of the following: the number of hours of authorized use, the total distance of authorized travel, the maximum speed of authorized operation, and the maximum load on an engine.

36. (New) The system of claim 29, wherein the control system is configured to transmit vehicle data indicative of vehicle operation to at least one of the first and second transponders via the radio transmitter, wherein the vehicle data includes data indicative of at least one of the distance traveled by the vehicle, the date and time the vehicle was started, service reminders, engine load, odometer reading and fault conditions.